

BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

STATE OF WISCONSIN

Petition of the Village of Rothschild for a Determination of the Adequacy of Warning Devices at the Grade Crossing of the Wisconsin Central Ltd. Tracks with Morrison Avenue in the Village of Rothschild, Marathon County

9164-RX-500

By letter dated December 17, 2002, the Village of Rothschild filed a petition with the Office of the Commissioner of Railroads (OCR) for a determination under §195.28, Stats., of the adequacy of warning devices at the grade crossing of the Wisconsin Central Ltd. (WCL) tracks with Morrison Avenue in the Village of Rothschild, Marathon County (Crossing No. 392 798T / VY 83.83).

An OCR investigator inspected the crossing. No hearing was held.

Findings of Fact

THE COMMISSIONER FINDS:

Morrison Avenue is a 2-lane roadway that intersects the railroad tracks at an angle of about 70° (left-hand forward). Morrison Avenue intersects Business USH 51 about 55' east of the main track. Morrison Avenue is controlled by a stop sign at Business USH 51. Morrison Avenue carried an average daily traffic (ADT) of 250 at a legal speed limit of 25 mph.

The WCL operates 6 through train movements per day over the crossing at a timetable speed of 40 mph. The railroad also operates 4 switch movements each day. The crossing consists of one mainline track and one industry spur track. In addition, there is a switch from the main track to another spur track about 150' south of the crossing.

The exposure factor at this crossing is 2500. The exposure factor equals the product of the number of trains per day and the number of highway vehicles per day, which yields a numerical value for the potential conflicts each day at the crossing.

Eight train-vehicle accidents have occurred at this crossing since 1973. The accidents occurred in 1976, 1978, 1982 (2), 1996, 2000, and 2002 (2). Two of the accidents occurred on the industry spur track and the 6 other accidents occurred on the main track. Four of the accidents on the main track included injuries.

Accidents that do occur here will likely be quite serious if a through train is involved due to their 40 mph speed. Train speed is strongly correlated with fatalities in train/vehicle accidents. More specifically, crossings with train speeds of 40 mph and over have a disproportionate number of fatalities. According to Federal Railroad Administration (FRA) statistics, nationally, in 1994 71% of fatalities occurred at crossings with train speeds of 40 mph+, even though only 26% of all crossings had train speeds of 40 mph+.

The Wisconsin Department of Transportation (DOT) proposes that automatic flashing lights and

gates with constant warning time circuitry be installed for the main track crossing and that the spur track crossing be treated as a separate crossing with crossbucks and a stop-and-flag order. In addition, the DOT plans to construct 10'-wide gravel escape lanes for 100' along Business USH 51 on each side of the Morrison Avenue intersection.

The crossing is currently treated as one crossing with crossbucks and one stop sign and advance warning signs for warning devices. The existing warning devices are inadequate. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety, 12" LED automatic flashing lights with gates and constant warning time circuitry are needed for the main track crossing with crossbucks and a stop-and-flag order for the spur track.

The automatic flashing lights and gates are needed because of the accident history and the proximity of the crossing to the Business USH 51 intersection. The automatic flashing lights and gates in conjunction with the escape lanes should substantially improve safety at this crossing. The automatic flashing lights will be activated about 25 to 30 seconds before the arrival of the train, which should eliminate the majority of the accidents. In addition, one of the three most recent train-vehicle accidents at the crossing involved a vehicle that had stopped on the tracks. There is inadequate storage space between the main track and the intersection for a semi-truck. It is highly likely that trucks will continue to stop on the tracks while waiting to enter Business USH 51, which carries approximately 16,000 ADT. When this condition exists the activation of the crossing signals will help alert the driver to the need to vacate the crossing area by driving on to the escape lane.

The order requires certain changes to be made by December 31, 2004 so that the two tracks are treated as separate crossings. These changes include installing crossbucks for the spur track crossing and installing crossbucks for the main line track crossing. Basically there are currently two crossbucks covering both tracks. In order to treat the tracks as separate crossings there will need to be 4 crossbucks. The railroad may re-use the existing crossbucks if they are in adequate condition. In addition, the order requires the railroad to stop and flag all train movements over the spur track crossing and requires the Village of Rothschild to install a stop sign on its own post for eastbound traffic at the main line crossing. There should not be a stop sign for westbound traffic.

The OCR and DOT recognize that the ultimate solution to crashes occurring at this crossing is to align Morrison Avenue with the I-39 southbound ramps that intersect with Business USH 51. However, this ultimate solution will require reconfiguration and relocation of the ramp terminals. DOT will need to fund that work through its Backbone program and funding from that program is currently fully allocated to other projects through at least 2009.

Constant warning time circuitry adjusts for train speed and causes the crossing signals to generally operate for the same amount of time before the train reaches the crossing, regardless of train speed. A motion detector simply detects the train operation, but does not adjust for train speed so that the amount of warning time varies based on train speed.

Light emitting diodes (LED) lamps replace incandescent bulbs. LEDs have higher conspicuity, a wider cone of vision, and longer life than incandescent lights. LEDs are especially useful on east-west roadways where the rising and setting sun may make the signals difficult to see.

Source of funding: The signal materials and installation shall be split as follows: DOT will use federal safety funds to pay 90% of the costs and the Village of Rothschild will pay the 10% local match.

Conclusion on the Issue

THE COMMISSIONER CONCLUDES:

1. That in order to adequately protect and promote public safety, it is necessary to install and maintain 12" LED automatic flashing lights with gates and constant warning time circuitry at the crossing of the main track of the Wisconsin Central Ltd. with Morrison Avenue in the Village of Rothschild, Marathon County.

2. That in order to adequately protect and promote public safety, it is necessary for the Wisconsin Central Ltd. to stop and flag all train movements and to install and maintain reflective crossbucks at the crossing of the industry spur track of the Wisconsin Central Ltd. with Morrison Avenue in the Village of Rothschild, Marathon County.

3. That in order to adequately protect and promote public safety, it is necessary for the Wisconsin Department of Transportation to construct 10'-wide gravel escape lanes for 100' along Business USH 51 on each side of the Morrison Avenue intersection.

Conclusion of Law

THE COMMISSIONER CONCLUDES:

That the jurisdiction of the Office of the Commissioner of Railroads under §195.28, Stats., extends to this matter. Accordingly, the Office enters an order consistent with the findings of fact.

Order

THE COMMISSIONER ORDERS:

1. That the **Wisconsin Central Ltd.** shall install and maintain reflective crossbucks on each approach to the crossing of the **industry spur** track with Morrison Avenue at-grade in the Village of Rothschild, Marathon County by **December 31, 2004** (Crossing No. 392 798T / VY 83.83).

2. That the **Wisconsin Central Ltd.** shall install and maintain reflective crossbucks on each approach to the crossing of the **main line** track crossing with Morrison Avenue at-grade in the Village of Rothschild, Marathon County by **December 31, 2004**.

3. That the **Wisconsin Central Ltd.** shall stop and flag all train movements over the crossing of the **industry spur** track with Morrison Avenue at-grade in the Village of Rothschild, Marathon County commencing by **December 31, 2004** (Crossing No. 392 798T / VY 83.83).

4. That the **Village of Rothschild** shall install and maintain a single stop sign on its own post (not on the crossbucks post) on the eastbound approach to the crossing of the **main line** track with Morrison Avenue at-grade in the Village of Rothschild, Marathon County by **December 31, 2004** (Crossing No. 392 798T / VY 83.83). There shall not be a stop sign installed for westbound traffic.

5. That the **Wisconsin Central Ltd.** shall install and maintain 12" LED automatic flashing lights with gates, constant warning time circuitry and other appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of the **main line** track with Morrison Avenue at-grade in the Village of Rothschild, Marathon County by **December 31, 2005** (Crossing No. 392 798T / VY 83.83).

6. That the **Wisconsin Central Ltd.** shall submit to the Office of the Commissioner of Railroads signal and circuit plans with the cost estimate of its proposed installation and upon completion of the signal project, a detailed statement of the actual cost to the Office and to the Wisconsin Department of Transportation.

7. That the signal installation work herein ordered shall not begin until the district office of the Wisconsin Department of Transportation informs the railroad that they may start such work and such start notice will not be issued until appropriate federal aid or other funding arrangements have been assured. The cost of the new project initiated before the start notice will not be reimbursed with public funds and shall be the responsibility of the railroad.

8. That the **Wisconsin Department of Transportation** shall construct 10'-wide gravel escape lanes for 100' along Business USH 51 on each side of the Morrison Avenue intersection by **December 31, 2005**.

9. That the **Wisconsin Central Ltd.** shall bear the cost of the crossbucks (material and labor) installation and any cost assessed to the railroad pursuant to §195.60, Stats., for the investigation of this matter by the Office. The railroad shall not pass on those assessment costs either directly or indirectly.

10. That the **Wisconsin Central Ltd.** shall bear no part of the cost of the crossing signals installation, except for any cost assessed to the railroad pursuant to §195.60, Stats., for the investigation of this matter by the Office. The railroad shall not pass on those assessment costs either directly or indirectly.

11. That if the petitioner, railroad or any interested party objects to this order and requests a hearing within 20 days of the date of this order in writing, the Office will hold a public hearing.

12. That jurisdiction is retained.

Dated at Madison, Wisconsin, _____.

By the Office of the Commissioner of Railroads.

Rodney W. Kreunen
Commissioner of Railroads

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